Amendments to the Claims

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

Claims 1-40 (Canceled)

Claim 41 (Previously Presented): An antenna device provided for transmitting and/or receiving RF radiation, installable in and connectable to a portable radio communication terminal device, and comprising:

an antenna structure comprising a plurality of antenna elements capable of being connected to and disconnected from each other, said antenna structure being switchable between a plurality of predefined antenna configuration states, in each of which multiple ones of said plurality of antenna elements are connected to each other, and each of which being distinguished by a set of radiation parameters; and

a switching device provided for selectively switching said antenna structure between said plurality of predefined antenna configuration states,

wherein each of said plurality of predefined antenna configuration states is optimized for operation of the antenna device in said portable radio communication terminal device in a respective predefined physical operation environment external to said portable radio communication terminal device.

Claim 42 (Previously Presented): The antenna device of claim 41, wherein said plurality of antenna elements includes at least three antenna elements.

Claim 43 (Previously Presented): The antenna device of claim 41, wherein said plurality of antenna elements includes at least five antenna elements.

Claim 44 (Previously Presented): The antenna device of claim 41, wherein said plurality of predefined antenna configuration states includes at least three antenna configuration states.

Claim 45 (Previously Presented): The antenna device of claim 41, wherein said plurality of predefined antenna configuration states includes at least five antenna configuration states.

Claim 46 (Previously Presented): The antenna device of claim 41, wherein at least some of said plurality of predefined antenna configuration states are optimized for operation of the antenna device in said portable radio communication terminal device in different frequency bands.

Claim 47 (Previously Presented): The antenna device of claim 41, wherein said antenna structure in at least some of said plurality of predefined antenna configuration states have different electrical lengths.

Claim 48 (Previously Presented): The antenna device of claim 41, wherein said switching device comprises a plurality of switches for connecting and disconnecting said plurality of antenna elements, and wherein said plurality of antenna elements are arranged one after another.

Claim 49 (Previously Presented): The antenna device of claim 41, wherein said antenna structure in at least some of said plurality of predefined antenna configuration states have different feed positions and/or different ground positions.

Claim 50 (Previously Presented): The antenna device of claim 49, wherein said at least some of said plurality of predefined antenna configuration states are identical except for the different feed positions and/or different ground positions.

Claim 51 (Previously Presented): The antenna device of claim 50, wherein said antenna structure comprises a planar or patch antenna and a plurality of feed connectors and/or ground connectors.

Claim 52 (Previously Presented): The antenna device of claim 41, wherein said antenna structure comprises two separate antennas of different type.

Claim 53 (Previously Presented): The antenna device of claim 52, wherein said two separate antennas are a whip antenna or a patch antenna, and a loop antenna or a meander antenna.

Claim 54 (Previously Presented): The antenna device as claimed in claim 41, wherein said switching device comprises a micro electromechanical system (MEMS) switch device.

Claim 55 (Previously Presented): The antenna device of claim 41, wherein each of said respective predefined physical operation environments is defined by objects affecting RF radiation and located within a distance from said portable radio communication terminal device of less than ten wavelengths of said RF radiation.

Claim 56 (Previously Presented): The antenna device of claim 41, wherein one of said plurality of predefined antenna configuration states is optimized for use of said antenna device in said portable radio communication terminal device in a position held to an ear of a user as a telephone, and one of said plurality of predefined antenna configuration states is optimized for use of said antenna device in said portable radio communication terminal device in a position held at a waist of the user.

Claim 57 (Previously Presented): The antenna device of claim 41, wherein said plurality of predefined antenna configuration states includes at least three antenna-configuration states, and said switching device is provided for receiving a measure indicating a change from a first one to a second one of said predefined physical operation environments and for switching said antenna structure from a first one to a second one of said plurality of predefined antenna configuration states, in dependence on said received measure, wherein said first predefined antenna configuration state is optimized

for use of said antenna device in said portable radio communication terminal device in said first predefined physical operation environment, and said second predetermined antenna configuration state is optimized for use of said antenna device in said portable radio communication terminal device in said second predefined physical operation environment.

Claim 58 (Previously Presented): The antenna device of claim 57, wherein said switching device is connectable to a sensor device, which is capable of sensing and identifying each of said respective predefined physical operation environments external to said portable radio communication terminal device, and which is provided for sending said measure indicating a change from a first one to a second one of said predefined physical operation environments to said switching device.

Claim 59 (Previously Presented): The antenna device of claim 58, wherein said antenna device comprises said sensor device.

Claim 60 (Previously Presented): The antenna device of claim 58, wherein said sensor device is capable of sensing and identifying each of said respective predefined physical operation environments external to said portable radio communication terminal device by means of sensing resistance, capacitance, inductance, light, temperature, and/or pressure external to said portable radio communication terminal device, or inclination, orientation and/or motion of said portable radio communication terminal device.

Claim 61 (Previously Presented): The antenna device of claim 58, wherein said sensor device is capable of sensing objects at two opposite sides of said portable radio communication terminal device simultaneously.

Claim 62 (Previously Presented): The antenna device of claim 57, wherein said antenna device is further provided with an adaptive fine-tuning device capable of controlling switching by said switching device to find an optimum one of a plurality of fine-tuning antenna configuration states, where said plurality of fine-tuning antenna configuration states are variants of said second predefined antenna configuration state.

Claim 63 (Previously Presented): An antenna device provided for transmitting and/or receiving RF radiation, installable in and connectable to a portable radio communication terminal device, and comprising:

an antenna structure comprising at least three antenna elements capable of being connected to and disconnected from each other, said antenna structure being switchable between at least three predefined antenna configuration states, each of which being distinguished by a set of radiation parameters; and

a switching device provided for selectively switching said antenna structure between said at least three predefined antenna configuration states,

wherein each of said at least three predefined antenna configuration states is optimized for operation of the antenna device in said portable radio communication terminal device in a respective predefined physical operation environment external to said portable radio communication terminal device.

Claim 64 (Previously Presented): An antenna device provided for transmitting and/or receiving RF radiation, installable in and connectable to a portable radio communication terminal device, and comprising:

an antenna structure comprising a plurality of antenna elements capable of being connected to and disconnected from each other, said antenna structure being switchable between a plurality of predefined antenna configuration states, in which said antenna structure has different electrical lengths and resonance frequencies; and

a switching device provided for selectively switching said antenna structure between said plurality of predefined antenna configuration states,

wherein each of said plurality of predefined antenna configuration states is optimized for operation of the antenna device in said portable radio communication terminal device in a respective predefined physical operation environment external to said portable radio communication terminal device.

Claim 65 (Previously Presented): An antenna device provided for transmitting and/or receiving RF radiation, installable in and connectable to a portable radio communication terminal device, and comprising:

an antenna structure comprising an antenna element and a plurality of feed connectors and/or ground connectors capable of being connected to and disconnected from said antenna element, said antenna structure being switchable between a plurality of predefined antenna configuration states, in which said different feed connectors and/or ground connectors are connected to said antenna element; and

a switching device provided for selectively switching said antenna structure between said plurality of predefined antenna configuration states,

wherein each of said plurality of predefined antenna configuration states is optimized for operation of the antenna device in said portable radio communication terminal device in a respective predefined physical operation environment external to said portable radio communication terminal device.

Claim 66 (Previously Presented): An antenna device provided for transmitting and/or receiving RF radiation, installable in and connectable to a portable radio communication terminal device, and comprising:

an antenna structure comprising a plurality of antenna elements capable of being connected to and disconnected from each other, said antenna structure being switchable between at least three predefined antenna configuration states, each of which being distinguished by a set of radiation parameters, and each of which being associated with a different operation environment external to said portable radio communication terminal device;

a switching device capable of selectively switching said antenna structure between said at least three predefined antenna configuration states; and

a control device provided for receiving a detected physical property external to said portable radio communication terminal device, for determining one of said at least three different operation environments external to said portable radio communication terminal device depending on said detected physical property, and for controlling said switching device to switch said antenna structure to said one of said at least three

different operation environments determined depending on said detected physical property.

Claim 67 (Previously Presented): An antenna device provided for transmitting and/or receiving RF radiation, installable in and connectable to a portable radio communication terminal device, and comprising:

an antenna structure comprising a plurality of antenna elements capable of being connected to and disconnected from each other, said antenna structure being switchable between at least three predefined antenna configuration states, each of which being distinguished by a set of radiation parameters, and each of which being associated with a different operation environment external to said portable radio communication terminal device;

a switching device capable of selectively switching said antenna structure between said at least three predefined antenna configuration states; and

a control device provided for receiving a sensed resistance, capacitance, inductance, light, temperature, and/or pressure value external to said portable radio communication terminal device, for determining one of said different operation environments external to said portable radio communication terminal device depending on said sensed resistance, capacitance, inductance, light, temperature, and/or pressure value, and for controlling said switching device to switch said antenna structure to said one of said different operation environments determined depending on said sensed resistance, capacitance, inductance, light, temperature, and/or pressure value.

Claim 68 (Previously Presented): An antenna device provided for transmitting and/or receiving RF radiation, installable in and connectable to a portable radio communication terminal device, and comprising:

an antenna structure comprising a plurality of antenna elements capable of being connected to and disconnected from each other, said antenna structure being switchable between at least three predefined antenna configuration states, each of which being distinguished by a set of radiation parameters, and each of which being associated with a different operation environment external to said portable radio communication terminal device;

a switching device capable of selectively switching said antenna structure between said at least three predefined antenna configuration states; and

a control device provided for receiving a measure of inclination, orientation and/or motion of said portable radio communication terminal device, for determining one of said different operation environments external to said portable radio communication terminal device depending on said measure of inclination, orientation and/or motion of said portable radio communication terminal device, and for controlling said switching device to switch said antenna structure to said one of said different operation environments determined depending on said measure of inclination, orientation and/or motion of said portable radio communication terminal device.

Claim 69 (Previously Presented): In an antenna device installable in and connectable to a portable radio communication terminal device, and comprising an antenna structure including a plurality of antenna elements capable of being connected to and

disconnected from each other, said antenna structure being switchable between a plurality of predefined antenna configuration states, in each of which multiple ones of said plurality of antenna elements are connected to each other, and each of which being distinguished by a set of radiation parameters, a method for transmitting and/or receiving RF radiation comprising:

connecting and disconnecting said plurality of antenna elements to thereby switch between said plurality of predefined antenna configuration states, in each of which multiple ones of said plurality of antenna elements are connected to each other; and

transmitting and/or receiving RF radiation,

wherein each of said plurality of predefined antenna configuration states is optimized for operation of the antenna device in said portable radio communication terminal device in a respective predefined physical operation environment external to said portable radio communication terminal device.

Claim 70 (Previously Presented): In an antenna device installable in and connectable to a portable radio communication terminal device, and comprising an antenna structure including at least three antenna elements capable of being connected to and disconnected from each other, said antenna structure being switchable between at least three predefined antenna configuration states, in each of which multiple ones of said at least three antenna elements are connected to each other, and each of which being distinguished by a set of radiation parameters, a method for transmitting and/or receiving RF radiation comprising:

connecting and disconnecting said at least three antenna elements to thereby switch between said at least three predefined antenna configuration states, in each of which multiple ones of said at least three antenna elements are connected to each other; and

transmitting and/or receiving RF radiation,

wherein each of said at least three predefined antenna configuration states is optimized for operation of the antenna device in said portable radio communication terminal device in a respective predefined physical operation environment external to said portable radio communication terminal device.

Claim 71 (Previously Presented): In an antenna device installable in and connectable to a portable radio communication terminal device, and comprising an antenna structure comprising a plurality of antenna elements capable of being connected to and disconnected from each other, said antenna structure being switchable between a plurality of predefined antenna configuration states, in which said antenna structure has different electrical lengths and resonance frequencies, a method for transmitting and/or receiving RF radiation comprising:

selectively switching said antenna structure between said plurality of predefined antenna configuration states, in which said antenna structure has different electrical lengths and resonance frequencies; and

transmitting and/or receiving RF radiation,

wherein each of said plurality of predefined antenna configuration states is optimized for operation of the antenna device in said portable radio communication

terminal device in a respective predefined physical operation environment external to said portable radio communication terminal device.

Claim 72. (Currently Amended): In an antenna device installable ~~instable~~ in and connectable to a portable radio ~~radion~~ communication terminal device, and comprising an antenna structure comprising an antenna element and a plurality of feed connectors and/or ground connectors capable of being connected to and disconnected from said antenna element, said antenna structure being switchable between a plurality of predefined antenna configuration states, in which said different feed connectors and/or ground connectors are connected to said antenna element, a method for transmitting and/or receiving RF radiation comprising:

selectively switching said antenna structure between said plurality of predefined antenna configuration states, in which said different feed connectors and/or ground connectors are connected to said antenna element; and

transmitting and/or receiving RF radiation,

wherein each of said plurality of predefined antenna configuration states is optimized for operation of the antenna device in said portable radio communication terminal device in a respective predefined physical operation environment external to said portable radio communication terminal device.

Claim 73 (Previously Presented): In an antenna device installable in and connectable to a portable radio communication terminal device, and comprising an antenna structure comprising a plurality of antenna elements capable of being connected to and

disconnected from each other, said antenna structure being switchable between at least three predefined antenna configuration states, each of which being distinguished by a set of radiation parameters, and each of which being associated with a different operation environment external to said portable radio communication terminal device, a method for transmitting and/or receiving RF radiation comprising:

receiving a detected physical property external of said portable radio communication terminal device;

determining one of said different operation environments external to said portable radio communication terminal device depending on said detected physical property;

controlling switching of said antenna structure to said one of said different operation environments determined depending on said detected physical property; and

transmitting and/or receiving RF radiation.

Claim 74 (Previously Presented): In an antenna device installable in and connectable to a portable radio communication terminal device, and comprising an antenna structure comprising a plurality of antenna elements capable of being connected to and disconnected from each other, said antenna structure being switchable between at least three predefined antenna configuration states, each of which being distinguished by a set of radiation parameters, and each of which being associated with a different operation environment external to said portable radio communication terminal device, a method for transmitting and/or receiving RF radiation comprising:

receiving a sensed resistance, capacitance, inductance, light, temperature, and/or pressure value external of said portable radio communication terminal device;

determining one of said different operation environments external to said portable radio communication terminal device depending on said sensed resistance, capacitance, inductance, light, temperature, and/or pressure value;

controlling switching of said antenna structure to said one of said different operation environments determined depending on said sensed resistance, capacitance, inductance, light, temperature, and/or pressure value; and

transmitting and/or receiving RF radiation.

Claim 75 (Previously Presented): In an antenna device installable in and connectable to a portable radio communication terminal device, and comprising an antenna structure comprising a plurality of antenna elements capable of being connected to and disconnected from each other, said antenna structure being switchable between at least three predefined antenna configuration states, each of which being distinguished by a set of radiation parameters, and each of which being associated with a different operation environment external to said portable radio communication terminal device, a method for transmitting and/or receiving RF radiation comprising:

receiving a measure of inclination, orientation and/or motion of said portable radio communication terminal device;

determining one of said different operation environments external of said portable radio communication terminal device depending on said measure of inclination, orientation and/or motion of said portable radio communication terminal device;

controlling switching of said antenna structure to said one of said different operation environments determined depending on said measure of inclination, orientation and/or motion of said portable radio communication terminal device; and

transmitting and/or receiving RF radiation.